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EIGHTEEN NEW OR SCARCE BUTTERFLIES FOR THE STATE OF MARYLAND

CONTRIBUTION NO. 4. NOTES ON MARYLAND LEPIDOPTERA

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DURING PROGRESSIVE FIELD STUDIES on Maryland Butterflies (contributions Nos. 1-3 Notes on Maryland Lepidoptera: Simmons 1957, 1963 and Simmons and Andersen 1962) we are occasionally rewarded by the discovery of species not only new to us but heretofore never reported from the state or meagerly reported upon at best. In some cases certain species are only known from a single specimen which has been lost or misplaced. It has become increasingly difficult to discover new species and forms from the state due to the extensive building programs and so called improvements that have destroyed many of the best ecological areas. Add to this the widespread and indiscriminate use of pesticides and you have a very dim picture of butterflies indigenous to Maryland. There has been a gradual decline in the butterfly population throughout the last ten years and unfortunately it seems to be getting progressively worse.

The Wood Nymphs *Cercyonis pegala alope* (Fabricius) and *Cercyonis pegala maritima* (Edwards) have been reported from Maryland by Clark (1932). Specimens of *Cercyonis p. alope* that are found on the Inner and Outer Coastal Plain of the state fall into a cline that reaches its climax along the Atlantic Coast proper. In this area adjacent to the ocean and its beaches the subspecies *Cercyonis pegala pegala* (Fabricius) is dominant. A series of specimens captured here by the authors are inseparable from a large series of *C. p. pegala* in the Franklin Chermock collection from the Coastal Plain of the Carolinas.

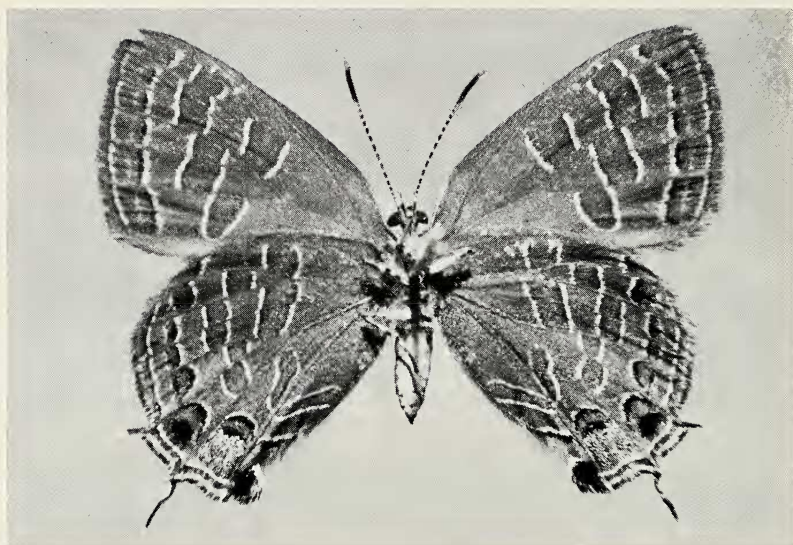


Fig. 1.—*Strymon liparops strigosus*, X4. Female venter; forewing length 14 mm. Near Odenton, Anne Arundel Co., Md., July 7, 1950.

Fig. 2.—*Feniseca tarquinius tarquinius*, X4. Dorsum; forewing length 15 mm. Near Fort Meade, Anne Arundel Co., Md., August 7, 1950. Black areas extensive, with reduction in orange; black submarginal spots of hindwing especially extensive or fused.

Collecting in the mountains of western Maryland has been productive in several areas where we netted a series of *Ceryonis* (Scudder). When these specimens were first captured we thought we had really hit it big with something new and undescribed. However, our old friend, Frank Chermock, again came to our rescue and showed us a series of *Ceryonis pegala nephele* (Kirby) in his collection. Our mountain species were inseparable from this subspecies. Since the species does undergo great clinal variation it is debatable whether one can justifiably designate the western Maryland species as true *C. p. nephele*. However, it should nevertheless be reported that this color form does occur in local colonies in the mountains and for the time being be designated as *Ceryonis pegala* form *nephele*.

A. H. Clark (1932) lists the Silver Bordered Fritillary, *Boloria selene myrina* (Cramer), from Beltsville, Maryland. However, he later described this as a new subspecies, *Boloria selene marilandica* (Clark, 1941) from these specimens and gave the type locality as Beltsville. Therefore, *Boloria selene myrina* has not been reported from Maryland.

This subspecies is found north and west of the Fall Line and has been collected in at least five counties. Although not common, it can be found in colonies and a series can be collected once the colonies are located. This species seems to prefer open, grassy, boggy areas that contain sedges, violets, and some water but are not overgrown. They do not stray far from these wet locales. There are two broods and a partial third. The first brood occurs in late May and early June. The second brood flies in July and the remnant of a third brood is on the wing in early September.

Clark and Clark (1951) first published the capture of the Silvery Checkspot, *Melitaea nycteis nycteis* (Doubleday) at Cabin John, Maryland by T. B. Blevins. Since that time most of the Blevins Collection has unfortunately been lost and along with it the *M. n. nycteis*. Clark at the time considered this species quite rare. However, the authors had collected this species extensively before the Blevins capture. *M. n. nycteis* has a wide range in Maryland occurring from the mountains to the Coastal Plains. It is far more common in the Piedmont and mountain areas. We have found several colonies on the Coastal Plain in Charles County. This species has two broods a year, which are from late May to early June, and from late July to early August.

In Maryland this butterfly seems to prefer shrubby areas, open areas near woods, and wet open woodland glades where the foodplant occurs.

Although the Coral Hairstreak, *Strymon titus mopsus* (Hubner), has been known from many localities in Maryland, the northern counterpart, *Strymon titus titus* (Fabricius), has not been reported. *S. t. mopsus* ranges throughout southern and eastern Maryland occupying the Coastal Plains and part of the Piedmont area. As the species travels west and north into the mountains a cline occurs that reaches an extreme in western Maryland. Specimens have no white pigment whatsoever around the black spots on the underside of the hind wings and represent *Strymon titus titus*. This species has one generation a year which usually flies in July.

The Gray Hairstreak, *Strymon melinus humuli* (Harris), occurs throughout Maryland. Several specimens captured on the Outer Coastal Plain adjacent to the Atlantic Ocean represent *Strymon melinus melinus* (Hubner). Compared to Florida specimens they seem identical. This area of Maryland probably represents the northern extreme of the southern cline. Successive broods fly from early April through early September.

The Northern Hairstreak, *Strymon ontario ontario* (Edwards), has long been considered a rare butterfly everywhere in its range. The only published record for Maryland was by Clark and Clark (1951) where they cite a single capture by W. H. Wagner in White Oaks, Maryland on June 17, 1942. We have collected this species in eight counties and in two of these counties captures have been made every year for at least ten years thereby indicating that the species can become well established and not necessarily an intermittant emigrant. One important item of interest concerns the flight pattern in Maryland which is usually slightly earlier than *Strymon liparops strigosa* or *Strymon falacer falacer* (Godart). In any given area where these three species occur together, the *S. o. ontario* are always very stale and worn by the time fresh individuals of the other two species emerge.

There is weak evidence that *S. o. ontario* has a vestigial first brood in Maryland since we have two records of May 4, 1952 and April 18, 1968. The main brood flies from June to July.

A female *Strymon liparops strigosa* (Harris), the Striped Hairstreak, was collected in Hyattsville, Maryland by Warren Herbert Wagner, Jr. on June 10, 1935. This rare little butterfly

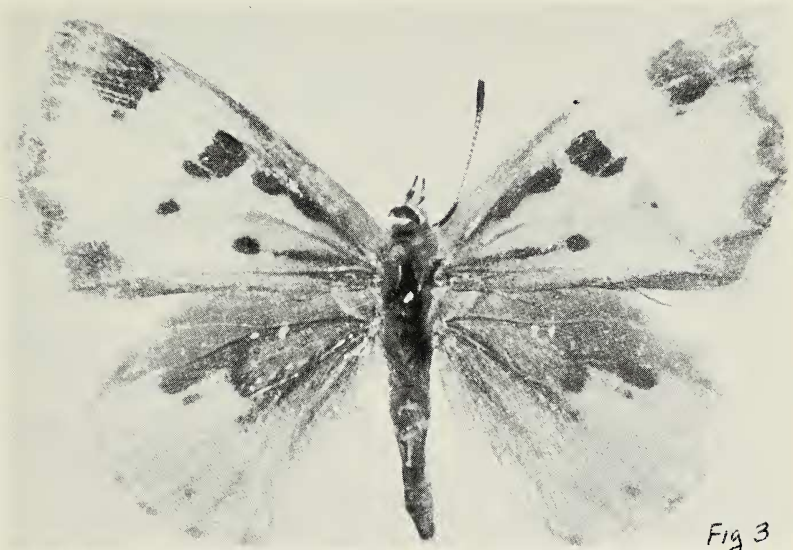


Fig. 3

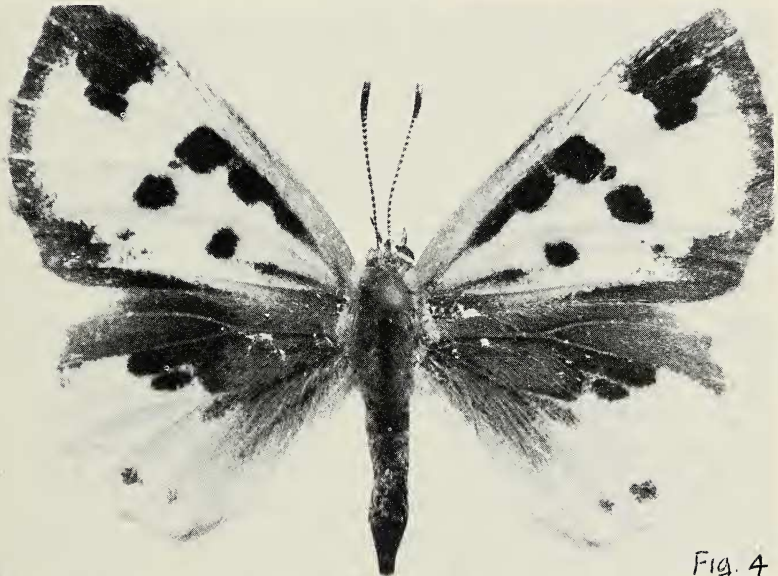


Fig. 4

Fig. 3.—*Feniseca tarquinius nova-scotiae*, X4. Dorsum of worn specimen; forewing length 17 mm. St. Johns, Newfoundland, June, 1929. Black areas very reduced, with extension of orange; black submarginal spots of hindwing especially reduced.

Fig. 4.—*Feniseca tarquinius*, form *nova-scotiae*, X4. Dorsum of fresh specimen; forewing length 17 mm. Foxville, Frederick Co., Md., April 28, 1955. Despite extensive individual variation in this species, Figures 3 and 4 are nearly identical and, without the data could be suspected of originating from the same locality.

seemed to elude Maryland collectors for years. However, concentrated field work throughout the state has produced records from almost every county. This species is never abundant in Maryland and is no doubt the most overlooked species in the state. Probably the greatest factor in the passing over by collectors of this species is their secretive feeding habits. In nine out of ten instances this species prefers to feed on the flowers of Red Milkweed and Indian Hemp. However, the butterfly loves to feed on those blossoms which are concealed from view or buried in the surrounding vegetation. The casual collector would surely miss this species. On many occasions such a concealed specimen can be very cautiously approached by a cyanide jar effecting a capture far more easily than the swing of a net.

While investigating mountainous areas along Catotin Ridge in Frederick County for new forms on April 28, 1955, a small colony of *Feniseca tarquinius tarquinius* (Fabricius), the Harvester, was discovered. The color pattern appeared strange and atypical. They were again taken to Frank Chermock for comparison with the extensive material he had in his collection. Our specimens were perfect replicas of specimens he had from Nova Scotia representing the subspecies, *Feniseca tarquinius novascotiae* (McDunnough).

On May 12, 1955, another colony was found in the mountains of Allegany County. These specimens were also *novascotiae*-like in character. Our friend Frank Chermock netted a similar series on April 27, 1957, near Ice Mountain, West Virginia.

One cannot justifiably call these specimens *F. t. novascotiae* since they are quite a distance south of the normal range. However, all of these mountain specimens from the spring brood cannot be separated from typical *F. t. novascotiae* and probably in some manner represents a temperature induced form. If so, then the ecological conditions in the mountains of Maryland during spring could be similar to those where *F. t. novascotiae* is typically found. On this basis it is not so surprising to find a form paralleling *F. t. novascotiae* existing in the mountains of Maryland representing the spring brood. Until detailed research can solve this apparent problem we will go on record reporting this spring color pattern as merely a form and not a subspecies.

Warren Herbert Wagner, Jr. reported the capture of a single fresh male of *Lycaena thoe* (Guerin-Meneville), the Bronze

Copper, on July 22, 1934, from Beltsville, Maryland. This rare butterfly was not observed again in Maryland until June 6, 1949 when the authors captured a small series near Eklo, Baltimore County. This prompted a detailed search of the state for this species. During the next few years we secured specimens from fourteen counties in the state. The range of *L. thoe* in Maryland extends throughout the state. The only areas where we have not recorded it as yet are western Maryland and the southern Inner Coastal Plain. We have some records from the Outer Coastal Plain, Eastern Shore that fringe the salt marshes, and tidal areas. *L. thoe* is triple brooded in Maryland, being found in June, July, and September.

Thorybes confusis (Bell), the Confused Cloudy Wing, has not been reported from Maryland. However, all through its range it has been confused with *Thorybes pylades* (Scudder), the Northern Cloudy Wing, and often overlooked. We have records from eight counties and it is probably statewide in occurrence. There are two broods a year which fly the first of June and the beginning of August.

One record was published for the capture of the Southern Sooty Wing, *Staphylus mazans hayhurstii* (Edwards), in Maryland by W. H. Wagner, Jr. from near Beverly Beach in Anne Arundel County. We have captured this species in sixteen counties from the Coastal Plains and Piedmont regions. This butterfly for many years seemed to be confined to salt marshes and tidal areas. However, in recent years it has penetrated the Piedmont and seems to be following the river flood plains. They usually prefer shady wooded areas and will not hesitate to fly directly into and weave through very heavy underbrush. Often they will rest in the middle of a large green leaf with their wings held horizontal. There are two broods a year which occur from May to June, and from July to August. The winter is spent as a hibernating larva in a hibernacula usually made by sewing two leaves together.

Erynnis baptisiae (Forbes), the Wild Indigo Dusky Wing, has not been reported from Maryland. This species has been reported common by many workers throughout its range. For many years we had very few records for this butterfly in Maryland and considered it a rare species and a good catch. In the spring of 1960 we were fortunate enough to observe a female laying eggs on the food plant *Baptisia tinctoria* (Wild Indigo). From this observation we learned how to find the eggs and larva. Detailed research throughout the state produced new records

from at least seventeen counties. However, the butterflies were obtained by raising eggs or larva through to adults. Very few adults were seen in the field much less captured. In Maryland this species is extremely difficult to obtain as adults but with effort can be obtained by raising the larva which are easier to collect.

There are two distinct broods in Maryland. The first brood flies the last week of May to the first week of June. The second brood flies the last week of July through the first two weeks of August.

Erynnis zarucco (Lucas), the Zarucco Dusky Wing, has been observed many times in the field in southern Maryland but has been difficult to catch. The fast erratic flight pattern makes it a tough target. However, on September 11, 1958, a perfect specimen was finally netted near Turner in Saint Mary's County for a new state record. This specimen was identified by Dr. John Burns.

Leonard's Skipper, *Hesperia leonardus leonardus* (Harris) has been reported from Maryland (Clark 1932). Specimens from the mountains of western Maryland display spots beneath the hind wings that are very dark and ochreous. This form represents the subspecies *Hesperia leonardus stallingsi* (H. A. Freeman), and has been collected in at least two counties. There is one brood a year that flies from the last of August to the first of September.

Field studies carried out on the Eastern Shore of Maryland were very productive on July 12, 1962. Several colonies of the rare Alabama Skipper, *Euphyes dion alabamiae* (Lindsey), were discovered in the extensive marsh and wetlands of Dorchester County. An extensive search was begun to find more colonies of this elusive butterfly. On July 29, 1965, several small colonies were discovered further south in Worcester County.

Specimens were observed and collected in a sedge-like grass that grew to four feet in wet areas. Occasionally a male would select a high perch overlooking the tall grass from which he would dart out at any passing insect. After driving off the intruder, the male would fly back and forth over his restricted flyway and settle back on his original perch with his wings tilted at a forty-five degree angle. Most of the specimens, both male and female, were content to stay quite low in the grass and when disturbed would zig-zag through it in a *Poanes viator* (Edwards) manner. This type of flight pattern made capture difficult.

The Two Spotted Skipper, *Euphyes bimacula* (Gorote and Robinson), was reported by A. H. Clark (1934, 1935) on the basis of one specimen from Cabin John, Montgomery County, Maryland. This skipper seems to be rare everywhere in its range. In Maryland it is confined to open boggy areas that are not overgrown. Diligent field work has turned this species up in four other counties: Baltimore, Howard, Garrett, and Frederick. We have never discovered a populous colony. Most locales produce one or two specimens and rarely more a year. These same areas are checked annually with the same results except that in some years none are seen. This species probably has a much wider range in Maryland. There is one generation a year that has a flight period from June to July.

One specimen of *Panoquina ocola*, the Ocola Skipper, was reported collected in Silver Spring, Maryland on September 7, 1931, by Clark (1932). This species is found regularly every year but is never common. In early summer it is rare, and as the summer progresses the butterfly increases in numbers. By September and October it has reached its maximum abundance where in proper locales four or five can be netted in a day's collecting. We have found it in seven counties.

Briefly summarized with early and late captures along with some of the new data and range extensions for Maryland are:

SPECIES	DATE	LOCALITY
1. <i>Cercyonis p. pegala</i> :	7-18-57	Ocean City, Worchester Co.
	8-15-68	Girdle Tree, Worchester Co.
2. <i>Cercyonis p.</i> form <i>nephele</i> :	VII-14-60	Green Ridge State Forest, Allegany Co.
	VII-31-58	Savage River State Forest, Garrett Co.
3. <i>Boloria s. myrina</i> :	VI-17-50	Sang Run, Garrett Co.
	IX-19-66	Thurmont, Frederick Co.
4. <i>Melitaea n. nycteis</i> :	VI- 7-62	Ironsides, Charles Co.
	VIII-27-46	Woodstock, Baltimore Co.
5. <i>Strymon t. titus</i> :	VII-17-56	Grantsville, Garrett Co.
	VII-26-55	Green Ridge State Forest, Allegany Co.
6. <i>Strymon m. melinus</i> :	VII-18-57	Ocean City, Worchester Co.
	VI-29-63	Beaver Dam, Worchester Co.
7. <i>Strymon o. ontario</i> :	IV-18-68	Hebbville, Baltimore Co.
	VI-23-61	Blackwater National Wildlife Refuge, Dorchester Co.
8. <i>Strymon l. strigosa</i> :	VI- 7-62	Doncaster State Forest, Charles Co.
	VII-18-62	Big Savage Mountain, Garrett Co.

9. *Feniseca t.*
form *novascotiae*: IV-28-55 Cunningham Falls State Park,
Frederick Co.
V-12-55 Green Ridge State Forest,
Allegheny Co.
10. *Lycaena thoe*: VI- 6-49 Eklo, Baltimore Co.
VII-16-53 Kent Island, Queen Annes Co.
IX-24-70 Bestpitch, Dorchester Co.
11. *Thorybes confusus*: VI- 9-50 Fort Meade, Anne Arundel Co.
IX- 3-63 Soldiers Delight, Baltimore Co.
12. *Staphylus m. hayhurstii*: V-28-70 Soldiers Delight, Baltimore Co.
IX-15-57 Great Falls, Montgomery Co.
13. *Erynnis baptisiae*: V-29-58 Eklo, Baltimore Co.
VII-11-60 Welcome, Charles Co.
14. *Erynnis zarucco*: IX-11-58 Turner, St. Mary's Co.
15. *Hesperia l. stallingsi*: IX-10-52 Oakland, Garrett Co.
16. *Euphyes d. alabamiae*: VII-12-62 Newbridge, Dorchester Co.
VIII-27-63 Blackwater National Wildlife
Refuge, Dorchester Co.
17. *Euphyes bimacula*: VI- 8-53 Hebbville, Baltimore Co.
VII-17-56 Wolf Swamp, Garrett Co.
18. *Panoquina ocola*: VII-15-52 Severna Park, Anne Arundel Co.
IX-13-60 Liverpool Point, Charles Co.

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